CLAIMS

1. A stainless steel wire consisting of 0.01 to 0.25 mass % C, 0.01 to 0.25 mass % N, 0.4 to 4.0 mass % Mn, 16 to 25 mass % Cr, 8.0 to 14.0 mass % Ni and the balance consisting of Fe with impurities, wherein the C+N content satisfies 0.15 mass % $\leq$ C+N $\leq$ 0.35 mass %;

said stainless steel wire contains 15 vol.% or less martensite phase induced by drawing and the balance consisting of austenite phase; and

said stainless steel wire has a texture in which the diffraction intensities of the austenite phase by X-ray diffraction in the longitudinal direction of the steel wire satisfy both $I(200)/I(111) \geq 2.0$ and $I(220)/I(111) \geq 3.0$.

2. The stainless steel wire according to Claim 1 further containing at least one of 0.4 to 4.0 mass % Mo, 0.1 to 2.0 mass % Nb, 0.1 to 2.0 mass % Ti and 0.8 to 2.0 mass % Si.

3. The stainless steel wire according to Claim 2 further containing 0.2 to 2.0 mass % Co.

4. The stainless steel wire according to Claim 1 having a surface roughness Rz of 20 micrometers or less.

5. The stainless steel wire according to Claim 1, wherein the cross sectional area perpendicular to the longitudinal direction of the steel wire has an elliptical shape, a trapezoidal shape, a square shape or a rectangular shape.

6. The stainless steel wire according to Claim 1, further including an Ni-plated layer with an amount of adhered Ni of 0.03 to 5.0 g/m^2, on the surface of the steel wire.

7. A spring manufactured using the stainless steel wire according to any one of Claims 1 to 6.

8. A method of manufacturing a spring including applying a spring working to the stainless steel wire according to any one of Claims 1 to 6 and thereafter performing low-temperature annealing at a temperature within the range of 400 to 600°C.